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| APPLICATION NO.                | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO. |
|--------------------------------|-------------|----------------------|-----------------------------|------------------|
| 10/580,751                     | 10/23/2006  | Hans-Ulrich Hansmann | 30572/42075                 | 1276             |
| 4743                           | 7590        | 08/31/2009           | EXAMINER                    |                  |
| MARSHALL, GERSTEIN & BORUN LLP |             |                      | BLIZZARD, CHRISTOPHER JAMES |                  |
| 233 SOUTH WACKER DRIVE         |             |                      |                             |                  |
| 6300 SEARS TOWER               |             |                      | ART UNIT                    | PAPER NUMBER     |
| CHICAGO, IL 60606-6357         |             |                      | 3771                        |                  |
|                                |             |                      |                             |                  |
|                                |             |                      | MAIL DATE                   | DELIVERY MODE    |
|                                |             |                      | 08/31/2009                  | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/580,751             | HANSMANN ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | CHRISTOPHER BLIZZARD   | 3771                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 July 2009.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.  
 4a) Of the above claim(s) 2-5 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 6-12 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 26 May 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/26/06</u> .   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of species I in the reply filed on 7/15/2009 is acknowledged.
2. Claims 2-5 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/15/09.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1 and 6-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. The term "a large number" in claim 1 is a relative term which renders the claim indefinite. The term "large number" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Liang (GB 2,264,060).
8. Regarding claim 1, Liang discloses respiratory mask comprising a mask body (1) and an exhalation system including a large number of membrane elements which are disposed on the mask body and through which expired air can flow (page 3, lines 3-8).
9. Regarding claim 8, Liang discloses the part of the mask body being made of textile (page 4, line 3) and the exhalation system being made of an elastomer (page 5, line 1).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang (GB 2,264,060) as applied to claim 1 above, and further in view of Hans (5,320,096).

12. Regarding claims 6 and 7, Liang discloses the claimed mask but does not disclose the membrane elements being bendable bars secured at one end at securing positions lying in an overlap area of the membrane elements. Hans teaches an exhalation system with membrane elements being bendable bars (36) (fig. 6) secured at one end at securing positions lying in an overlap area of the membrane elements (fig.

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6). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the exhalation system of Liang with bendable bars as taught by Hans in order to provide the advantage of filtered exhaled gas.

13. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang (GB 2,264,060) as applied to claim 1 above, and further in view of Blake-Coleman (5,160,616).

14. Regarding claims 9-12, Liang discloses the claimed invention except for the use of a material, such as PVDF film, which as a result of an electric field changes its geometry and spring rigidity as a membrane material. Blake-Coleman teach the use of PVDF film (column 2, lines 55-58) in medical technologies (column 1, lines 6-8) as a membrane material that can change its geometry, and therefore its spring rigidity, due to an applied electric field (column 1, lines 65-67) in order to change its filtering properties ( column 3, lines 51-54). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the exhalation system of Liang with PVDF film as taught by Blake-Coleman in order to provide the advantage of filtered exhaled gas.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Whitaker (6,062,220) a textile facemask with folded membrane, Chiam (7,086,401) a facemask with overlapping bending internal supports, and Gradon (2004/0065327) a mask with exhalation system to reduce noise.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER BLIZZARD whose telephone number is (571)270-7138. The examiner can normally be reached on Monday thru Friday, 9:00AM -5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571)2724835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven O. Douglas/  
Primary Examiner, Art Unit 3771